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(54) MANUFACTURE OF RESIN MOLDED SEMICONDUCTOR DEVICE

(57) Abstract:

PURPOSE: To prevent the displacement of a chip supporting plate at injection of resin and to restrain occurance of shortage accident and insulation failure by arranging engaging parts of the chip supporting plate with providing a difference in level between the both.

CONSTITUTION: A mold contact part 5 of a chip supporting plate 1 on which a semiconductor chip is mounted is composed of the first and second mold engaging parts 8 and 10. The molds for resin sealing (top force 12 and bottom force 13) support a lead frame with pin-form projections 15 and 16. The upper and lower projections 15 and 16 are not arranged oppositely but, there is a difference in level. As a result, even if the resin is pressure-injected, the lead frame is almost never displaced in a space 14 and a distance H between a lower plane of a heat-dissipation supporting plate 1 and that of covering member 19 can be kept nearly constant, and the heat dissipation characteristics becomes constant. Also the depth of resin lost holes 20 and 21 produced corresponding to the projections 15 and 16 become deep and the distance from a surface of covering member 19 to the mold engaging parts 8 and 10 becomes wide thereby improving the insulating properties.

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